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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,383	07/28/2001	Shi-You Ding	NREL01-37	9967

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EXAMINER	
PATTERSON, CHARLES L JR	
ART UNIT	**PAPER NUMBER**
1652	

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/917,383	DING ET AL.	
	Examiner	Art Unit	
	Charles L. Patterson, Jr.	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,27-35,43,44,48-54 and 58-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,27-35,43,44,48-54 and 58-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The amendment filed 1/24/05 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

New Figure 2 has Arabic numbers apparently corresponding to the diversity of glycoside hydrolase families. However the original figure and the one submitted on 8/13/04 that was not labeled "Replacement Sheet" contained some type of fuzzy characters the appear to be perhaps a "+" sign with the horizontal bar greatly enlarged. In submitting the new Fig. 2 there was no explanation given why the figure was changed. There may well be a good explanation for this that the examiner will agree with, but without such an explanation this new matter rejection is done.

Applicant is required to cancel the new matter in the reply to this Office Action.

Applicants submitted new written sequence disclosures after the actions mailed 6/23/03 and 3/3/04. The examiner stated in the actions mailed 3/3/04 and 10/14/04 that a new written sequence disclosure had been submitted but no new CRF (computer readable form) sequences had been submitted. Applicants have now submitted another written sequence disclosure but they have still not submitted a new CRF. As previously stated, the last CRF was submitted on 9/23/02. Applicants are required to submit a new CRF that corrects the errors noted in the action mailed 6/12/03.

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful

> improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
>
> The following is a quotation of the first paragraph of 35 U.S.C. 112:
>
> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-23, 27-35, 43, 44, 48-54 and 58-75 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-11, 26, 27, 36-43, 44, 45 and 69-74 of copending Application No. 09/917,384. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. This rejection is repeated for the reasons given in the last action. Applicants arguments have been carefully considered but do not overcome the instant rejection.

Applicants state again that after a "careful review" of the sequences, the sequences in 09/917,384 are different than those in this application. As the examiner stated in the action mailed 3/3/04, SEQ ID NO:1, 2, 4, 5, 7 and 8 of this application are 100% identical with the same SEQ ID NOs in 09/917,384. An attachment was sent to the action mailed 3/3/04 showing this 100% identity. As discussed *supra*, there has not been a new CRF submitted in this application since 9/23/02 and in 09/917,384 there has not been a new CRF submitted since 12/30/02. Therefore the sequences in the computer data base are still the same. The examiner has gone to the effort of looking at all the records in 09/917,384 and this application and found that in 09/917,384, the written sequence disclosure filed 1/8/02 had 1121 residues in SEQ ID NO:1, but the sequence entered by the STIC (from the CRT filed in that application) on 2/8/02 had 1228 residues. Therefore possibly the problem is due

to an incorrect CRF filed in 09/917,384. It is noted that 09/917,384 was abandoned but has now been revived and therefore this rejection is maintained. No amount of new written sequence disclosures in either application is going to change what is in the computer.

Claims 27-28, 35, 43-44, 48-54 and 63-68 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific substantial asserted utility or a well established utility.

The instant claims are drawn to a polypeptide comprising SEQ ID NO:4, 7, 5, 8, 1 or a sequence having at least 70% identity with these sequences "and having at least one domain of glycosyl hydrolase family 6 and glycosyl hydrolase family 12". The examiner has carefully read the Remarks in the instant amendment concerning the statements in the specification that "GuxA" (which apparently is SEQ ID NO:1) has utility in degrading cellulose and has dropped the rejection of many of the claims previously rejected. However, there is no showing in the specification that SEQ ID NO:4, 7, 5 or 8 alone will cleave cellulose and certainly not that a polypeptide having 70% identity with all of these sequences and the one additional domain defined in the claim will cleave cellulose or have any other utility alone. As noted *infra*, the examiner will allow 95% homology to allow for allelic variants.

Claims 27-28, 35, 43-44, 48-54 and 63-68 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claims 27-28, 35, 43-44, 48-54 and 63-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As characterized *supra*, the instant claims read on amino acid sequences "having 70% sequence identity with the amino acid sequence of...[SEQ ID NO:4, 7, 5, 8, 1] and having at least one domain of glycosyl hydrolase family 6 and glycosyl hydrolase family 12". The specification does not teach one of ordinary skill in the art to make all polypeptides with 70% identity to these sequences that will still have activity. The examiner will allow 95% identity in order to allow for allelic variants.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose

telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
April 7, 2005